

REQUEST FOR PROPOSAL

COUNTY OF SAN BERNARDINO
PURCHASING DEPARTMENT

Date: December 4, 2008

Proposal No. **K-33**

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Materials and/or Services: **Crack Fill Trailer**

To Be Delivered To: County of San Bernardino
Public Works Operationst
825 E. 3rd Street
San Bernardino, CA 92415-0845

Submit each individual proposal in separate sealed envelope with proposal number marked on outside to:

County Purchasing Agent
777 East Rialto Avenue
San Bernardino, CA 92415-0760
BEFORE: Tuesday, January 6, 2009, 11 AM

For further information, call: Zachary L. Avey
Deputy Purchasing Agent
(909) 387-2070

INSTRUCTIONS AND CONDITIONS

1. All prices and notations must be typewritten or printed in ink. No erasures permitted. Mistakes may be crossed out and corrections made adjacent, and must be initialed in ink by person signing quotation.
2. State brand, or make, on each item. If quoting an article exactly as specified, the words "or equal" must be stricken out by the vendor. If quoting on other than make, model or brand specified, the manufacturer's name and the catalog number must be given, or descriptive cut and information attached to the quotation.
3. Quote on each item separately. Prices should be stated in units specified herein.
4. Each quotation must be in separate sealed envelope with proposal number on outside, and must be received by County Purchasing Agent, 777 East Rialto Avenue, San Bernardino, CA 92415-0760 no later than the hour and day specified hereon, at which time it will be publicly opened and read.
5. Time of delivery is a part of the consideration and must be stated in definite terms, and must be adhered to. If time varies on different items, the vendor shall so state in the column provided, opposite each item.
6. Terms of less than 30 days for cash discount will be considered as net.
7. All quotations must be signed with the firm's name and by a responsible officer or employee. Obligations assumed by such signatures must be fulfilled.
8. Unless otherwise definitely specified, the prices quoted herein do not include California Sales or Use Tax. For questions regarding taxes contact the State of California Franchise Tax Board.
9. No charge for packing, drayage, or for any other purpose will be allowed over and above the prices quoted on this sheet.
10. The right is reserved, unless otherwise stated, to accept or reject any or all quotations, or any part thereof, either separately or as a whole, or to waive any informality in a proposal.
11. The County recognizes that price is only one of several criteria to be used in judging a product or service, and the County is not legally bound to accept the lowest quote.
12. Samples of items, when required, must be furnished free of expense to the County; and if not destroyed by tests, will upon request be returned at vendor's expense.
13. In case of default by the vendor, the County of San Bernardino may procure the articles or service from other sources and may deduct from unpaid balance due the vendor, or may collect against the bond of surety, or mail bill for excess costs so paid, and the prices paid by the County of San Bernardino shall be considered the prevailing market prices paid at the time such purchase is made.
14. Cost of transportation, handling, and/or inspection on deliveries, or offers for delivery, which do not meet specifications, will be for the account of the vendor.

15. The vendor shall hold the County of San Bernardino, its officers, agents, servants and employees, harmless and defend same from liability of any nature or kind on account of use of any copyright, or uncopyrighted composition, secret process, patented or unpatented invention, article, or appliance furnished or used under this quotation.
16. Neither party will be held liable for failure or delay in fulfillment if hindered or prevented by fire, strikes, or Acts of God. (Force Majeure)
17. Quotations are subject to acceptance at any time within the manufacturers model build.
18. Verify your quotations before submission, as they cannot be withdrawn or corrected after being opened.
19. RETURN THIS SHEET WHETHER OR NOT YOU QUOTE A PRICE. If you do not quote, state your reason; otherwise your name may be removed from the mailing list.
20. Accounts paid for transportation of property to the County of San Bernardino are exempt from Federal Transportation Tax. An exemption certificate is not required where the shipping papers show the consignee as San Bernardino County, as such papers may be accepted by the carrier as proof of the exempt character of the shipment.
21. To be considered, each vendor must have an approved Vendor Application on file with the Purchasing Department. Vendors must register online through the County Website at <http://www.sbcounty.gov/purchasing/>.
22. The Vendor agrees to comply with Executive Orders 11246, 11375, 11625, 12138, 12432, 12250, Title VII of the Civil Rights Act of 1964, the California Fair Employment Practice Act, Equal Employment Opportunity, San Bernardino County Emerging Small Business Enterprise program, and other applicable Federal, State, and County laws, regulations, and policies relating to equal employment and contracting opportunities, including laws and regulations hereafter enacted. The articles covered by the quotation must conform with safety orders of OSHA, CALOSHA and/or NIOSHA, and OSH-POD.
23. Assignment of the contract by the vendor to other suppliers/contractors must be approved by the Purchasing Agent in writing.
24. Prevailing Wages: Where labor is required for public work as a part of any requirements covered by this request for proposal, pursuant to the provisions of the Labor Code of the State of California, contractor shall pay no less than those minimum wages.
25. Conflict of Interest: Your signature hereon certifies that no County employee, whose position in the County service enables them to influence any award of your offer or any competing offer, shall have any direct or indirect financial interest in any transaction resulting from this request for proposal.
26. Vendors making delivery or providing services on County premises shall carry liability insurance and Worker's Compensation coverage in accordance with the County's Standard Practice requirements.

IMPORTANT: Place signed proposal in envelope, **seal** envelope and show **proposal number** on outside. Return proposal to the County Purchasing Agent, 777 East Rialto Avenue, San Bernardino, CA 92415-0760
PRICES QUOTED F.O.B. DESTINATION UNLESS OTHERWISE STATED.

The following must be filled in by the contractor in submitting his proposal:

Date _____

Company _____

Delivery will be made in _____ days
from receipt of order unless otherwise noted.

Address _____

Cash Discount Terms _____

City & State _____ Zip _____

Signed By _____

Telephone No. (_____) _____

A. STANDARD TERMS AND CONDITIONS

1.0 IMPROPER CONSIDERATION:

Vendor shall not offer (either directly or through an intermediary) any improper consideration such as, but not limited to, cash, discounts, service, the provision of travel or entertainment, or any items of value to any officer, employee or agent of the County in an attempt to secure favorable treatment regarding the award of this proposal.

The County, by written notice, may immediately terminate any contract resulting from this proposal process if it determines that any improper consideration as described in the preceding paragraph was offered to any officer, employee or agent of the County with respect to the proposal and award process. This prohibition shall apply to any amendment, extension or evaluation process once a contract has been awarded.

Vendor shall immediately report any attempt by a County officer, employee or agent to solicit (either directly or through an intermediary) improper consideration from Vendor. The report shall be made to the supervisor or manager charged with supervision of the employee or to the County Administrative Office.

In the event of a termination under this provision, the County is entitled to pursue any available legal remedies.

2.0 INACCURACIES OR MISREPRESENTATIONS:

If in the course of the RFP process or in the administration of a resulting contract, County determines that Vendor has made a material misstatement or misrepresentation or that materially inaccurate information has been provided to County, Vendor may be terminated from the RFP process or in the event a contract has been awarded, the contract may be immediately terminated.

3.0 EMPLOYMENT OF FORMER COUNTY OFFICIALS:

Vendors are required to provide information on former County of San Bernardino administrative officials (as defined below) who are employed by or represent your business. The information provided must include a list of former County administrative officials who terminated County employment within the last five years and who are now officers, principals, partners, associates or members of the business. This list should also include the employment and/or representative capacity and the dates these individuals began employment with or representation of your business.

For purposes of this section, "County administrative official" is defined as a member of the Board of Supervisors or such officer's staff, County Administrative Officer or member of such officer's staff, County department or group head, assistant department or group head, or any employee in the Exempt Group, Management Unit or Safety Management Unit.

Failure to provide this information may result in the response to the Request for Proposal being deemed non-responsive.

4.0 DISCLOSURE OF CRIMINAL AND CIVIL PROCEEDINGS:

The County reserves the right to request the information described herein from the vendor selected for contract award. Failure to provide the information may result in a disqualification from the selection process and no award of contract to the vendor. The County also reserves the right to obtain the requested information by way of a background check performed by an investigative firm. The selected vendor also may be requested to provide information to clarify initial responses. Negative information provided or discovered may result in disqualification from the selection process and no award of contract.

The selected vendor may be asked to disclose whether the firm, or any of its partners, principals, members, associates or key employees (as that term is defined herein), within the last ten years, has been indicted on or had charges brought against it or them (if still pending) or convicted of any crime or offense arising directly or indirectly from the conduct of the firm's business, or whether the firm, or any of its partners, principals, members, associates or key employees, has within the last ten years, been indicted on or had charges brought against it or them (if still pending) or convicted of any crime or offense involving financial misconduct or fraud. If the response is affirmative, the vendor will be asked to describe any such indictments or charges (and the status thereof), convictions and the surrounding circumstances in detail.

In addition, the selected vendor may also be asked to disclose whether the firm, or any of its partners, principals, members, associates or key employees, within the last ten years, has been the subject of legal proceedings as defined herein arising directly from the provision of services by the firm or those individuals. "Legal proceedings" means any civil actions filed in a court of competent jurisdiction, or any matters filed by an administrative or regulatory body with jurisdiction over the firm or the individuals. If the response is affirmative, the vendor will be asked to describe any such legal proceedings (and the status and disposition thereof) and the surrounding circumstances in detail.

For purposes of this provision "key employees" includes any individuals providing direct service to the county. "Key employees" do not include clerical personnel providing service at the firm's offices or locations.

5.0 DISPUTES RELATING TO PROPOSAL PROCESS AND AWARD:

In the event a dispute arises concerning the proposal process prior to the award of the contract, the party wishing resolution of the dispute shall submit a request in writing to the Director of Purchasing. Vendor may appeal the recommended award or denial of award, provided the following stipulations are met:

- a. Appeal must be in writing.
- b. Must be submitted within ten (10) calendar days of the date of the recommended award or denial of award letters.

An appeal of a denial of award can only be brought on the following grounds:

- a. Failure of the County to follow the selection procedures and adhere to requirements specified in the RFP or any addenda or amendments.
- b. There has been a violation of conflict of interest as provided by California Government Code Section 87100 et seq.
- c. A violation of State or Federal law.

Appeals will not be accepted for any other reasons than those stated above. All appeals must be sent to:

Laurie Rozko, Interim Director
County of San Bernardino Purchasing Department
777 E. Rialto Avenue
San Bernardino, CA 92415-0760

6.0 PARTICIPATION:

The County desires that the municipalities, school districts, and other tax districts within the state of California, may at their option and through the County Purchasing Agent avail themselves of the contract resulting from this proposal. Upon notice in writing, the Vendor agrees to the extension of the terms of a resultant contract with such Governmental bodies as though they have been expressly identified in this proposal, with the provision that:

- a. Such Governmental body does not have and will not have in force any other contract for like purchases.
- b. Such Governmental body does not have and will not have under consideration for any other contract for like purchases.
- c. Such Governmental body shall make purchases in its own name, make payment direct to the Vendor, and be liable directly to the vendor, holding the County harmless there of.

7.0 ELECTRONIC FUNDS TRANSFERS:

Vendor shall accept all payments from the County via electronic funds transfer (EFT) directly deposited into the Vendor's designated checking or other bank account. Vendor shall promptly comply with directions and accurately complete forms provided by the County required to process EFT payments.

8.0 LOCAL PREFERENCE POLICY:

The County of San Bernardino has adopted a preference for vendors whose principal place of business is located within the boundaries of the County. A five percent (5%) preference may be applied prior to approval of any purchase or acquisition of services, equipment, goods, or supplies.

For purposes of the application of the local preference policy (County Policy 11-12), "principal place of business" is defined as the vendor's main office (or headquarters) or a major regional office. A "major regional office" is defined as a business location apart from the vendor's main office (or headquarters) which:

- a. Has been issued a business license, if required, and has been established and open for a minimum of six months prior to the date that the approval authority authorizes the circulation of an RFP/RFB/Quote for any contract, agreement, or purchase order to which it responds;
- b. Can demonstrate on-going business activity in the field of endeavor on which the Vendor is proposing, from that office during the preceding six months; and
- c. Has a minimum of twenty-five percent (25%) of the vendor's full time management employees and twenty-five percent (25%) of its full time regular employees working from the County of San Bernardino location(s).

The County's Local Preference Policy means for example, if two Vendors are responding to this RFP and if quality, service and ability to meet the County's needs are equal, County staff must determine if one of the Vendors is a local vendor. If one of the Vendors is a local vendor, and its quoted price or cost for services, equipment, goods or supplies does not exceed five percent (5%) of the other vendor's quoted price or cost, unless it is determined that an exemption applies, staff may recommend the local vendor for the contract award.

9.0 PRICING:

Proposal pricing will remain open for a 12 month period from the date of award, after the 12 month time has elapsed, the proposal may, at the County's option and with agreement of the manufacturer/vendor, remain open for a maximum of three (3) years. The annual price increase shall not exceed the US Department of Commerce Price Index or documented manufacturers price increases for the type equipment proposed.

GENERAL INFORMATION	YES	NO	COMMENTS
<p>The objective of our acquisition approach is to ensure that the most capable products are introduced into the using departments, while simultaneously ensuring life cycle affordability. Award of this proposal may be based on, but not limited to, the lowest acceptable proposal utilizing life cycle factors.</p> <p>The Purchasing Agent, at their discretion, may convene a standards committee (County Ordinance # 3790) to address selection criteria; in such a case, the potential vendors or manufacturer may be required to provide additional information and/or equipment for testing purposes.</p> <p>The vendor is required to furnish four (4) proposal copies, the original and three (3) copies so marked. All copies must include the same back up material and attachments as the original. Include with your proposal the manufacturer's brochure and specifications of the units you intend to furnish.</p> <p>All units shall comply with specifications herein and include all options as listed. Unlisted options will be based on dealer cost plus five percent, based on the manufacturer's price list. Additional aftermarket accessories may be secured from the awarded vendor on a case-by-case basis.</p> <p>Include in your proposal all costs <u>except</u> State of California sales tax. Discounts for early payment or penalties for late payments will not be considered on this proposal.</p> <p>All deliveries will be checked for compliance with stated specifications; vendors not complying will subject themselves to meet the specifications on delivered units regardless of cost.</p> <p>The Purchasing Agent, County of San Bernardino, reserves the right to reject any and all proposals or to accept any proposal or portions of any proposal presented which he/she deems best suited to the interest of the County, and is not bound to accept the lowest price. All proposals are to be quoted F.O.B, San Bernardino, CA 92415.</p> <p>All units purchased by the County are to be delivered in customer-ready condition, cleaned, washed, and lubricated, no exceptions.</p> <p>The following specifications describe maintenance equipment to be used by the Transportation Operations Department, of the San Bernardino County, Department of Public Works. The equipment will be a new and currently advertised model built by a well-established manufacturer of this type of equipment. <u>This specification is written towards one manufacturer's design. The intent of the department is not to limit or eliminate proposals but to start with a buildable set of specifications towards equipment that the department is seeking.</u> In the event of major failure during the warranty period, the vendor will furnish or reimburse the County for the transportation of the equipment to the vendor's place of business for repairs.</p>			

GENERAL INFORMATION	YES	NO	COMMENTS
Warranty: The entire unit(s) and its attachments, as specified, shall be fully warranted from date of delivery for two (2) years or fifteen hundred (1,500) hours, whichever comes first, excluding consumable items such as oil and filters, and normal wear items such as belts, hoses, cutting edges, etc. County staff may perform authorized warranty repairs and receive reimbursement for travel, labor and parts.			
Safety: The successful vendor must certify that they will meet all existing regulations contained in the State of California Construction Safety Orders Vehicle Code and/or O.S.H.A. at time of acceptance, for this type of machinery, all applicable California Air Quality Management District Regulation, all California and Federal Vehicle Code, U.S. Forestry, Fire Codes or any other applicable laws or regulations for on- or off-road, and day or night operation. Interior and exterior noise shall comply with Occupational Safety and Health Act (OSHA) sound level (dba) requirement in effect of time of award of contract for an eight hour maximum operator exposure time; measured at operator's ear with the engine governed at RPM. Shall be less than 85 dba.			
Manufacturers' standard warranty shall accompany the vehicle, together with all the information required by the manufacturer on the warranty form.			
If equipment does not meet minimum specified, vendor will be required to make necessary correction at their expense.			
List the locations of available replacement parts and normal time required for delivery of such parts. Vendor shall guarantee replacement parts and make sure that they are available within 48 hours or less. If parts are not available in this time period, vendor shall reimburse the County for the cost of renting a machine until the part arrives.			
Delivery: Prior to delivery, new vehicle must be completely serviced in accordance with the standard new vehicle "made ready" and the manufacturer's recommendations.			
Fuel tank to be filled. Unit delivered to the Public Works Department at 210 N Lena Rd., Building 6c, San Bernardino, CA 92415-0835, shall contain a pre-delivery check sheet and what operations have been performed on the equipment and signed by the mechanics or individuals who worked on the unit. Unit shall have a meter reading of less than 50 hours when unit is accepted meeting specifications. Exceeding the hours stated will result in refusal of unit and cancellation of order.			
Vendor: The successful vendor may contact the Operations Equipment Superintendent prior to delivery so that arrangements can be made for pre-delivery inspection on vendor's premises. (If outside a 100 mile radius from San Bernardino site, vendor shall pay travel, lodging and meal expenses for the equipment superintendent and one representative from the Fleet Management Department – QUOTE SEPARATELY) Under no circumstances will a partial delivery of accepted specifications be made. The vendor shall also make available qualified service and operational personnel for post delivery familiarization with the Operations' personnel. The vendor shall include a revisit to the equipment approximately thirty (30) days after it is placed in service. The revisit shall include checking all operating systems for proper operations, adjustments, leaks, or any other defects, at no additional cost to the County. San Bernardino County maintains the			

GENERAL INFORMATION	YES	NO	COMMENTS
right to inspect the equipment, within manufacturer's normal business hours, at any other point during construction. Expenses incurred during non-specified inspection visits will be the responsibility of San Bernardino County.			
The specifications herein shall not be construed in any way to mean the degrading or elimination of accepted standards of engineering and craftsmanship in configuration and construction. If there are conflicting specifications; the one with the higher operations standard will apply. ALL EXCEPTIONS to the specifications contained herein must be on the Proposal Sheet to be considered at the time of award. All subcontractors or suppliers and vendors of attachments to this unit must be listed on the bid sheet. Vendor to be the sole responsible party for equipment, attachments and specialized components.			
General Information: Each vendor must indicate their compliance with these specifications by marking "YES" or "NO" in the appropriate column for each paragraph of this specification. Indicating "YES" to a paragraph will mean full compliance; indicating "NO" will mean that an exception is being taken. All exceptions must be fully explained (on a separate page if necessary, titled "EXCEPTIONS", giving a brief reference to the page and paragraph where the exception is being taken. Vendor shall supply with the bid a scaled drawing of the unit. Failure to comply with this requirement will result in the proposal being rejected.			

SPECIFICATIONS - 400 GALLON CRACK FILL TRAILER	YES	NO	COMMENTS
A. The purpose of these specifications is to describe a double-oilier type melter applicator that is specifically designed for and shall be capable of heating and applying all grades of asphalt rubber sealant, asphalt fiber blends and specification hot pour crack and joint sealants without further equipment modification. This unit shall be the manufacturer's current production model.			
B. The machine shall be capable of starting at ambient temperature and bringing the sealant material up to application temperature in less than one hour at a 70 degree ambient temperature.			
C. All qualified bidders must have and maintain a complete inventory of repair parts and have experienced factory-trained service personnel for this equipment.			
D. A comprehensive safety manual. Operational/maintenance and DVD manual shall be supplied with each unit.			
E. A factory trained person shall be made available for initial start-up and training in the operation of the melter at Barstow, Calif.			
F. Temperature indicating devices shall have intervals no greater than 1 degree Farenhight and shall be calibrated as required to assure accuracy.			
G. The melter shall have continuous sealant agitation and mixing system to provide uniform viscosity and temperature of material being applied.			
REQUIRED SAFETY FEATURES			
A. The unit shall have a safety shut-off on both loading doors that automatically stop the agitator when the lid is opened. When equipped with a conveyor operation when the loading door is open.			
B. The applicator wand shall be equipped with an automatic shut off feature that will stop the rotation of the sealant pump, sealant flow, and all line pressure when the handle is released or dropped.			
C. There shall be no valves to allow interruption or diversion of sealant flow away from the applicator hose and wand. Sealant flow will be controlled by stopping and starting of the pump rotation. Units that maintain sealant flow of any type when the handle is released are unacceptable.			
TOWING FRAME AND JACK			
A. This unit shall be trailer mounted. The longitudinal side frames and tongue members of the trailer shall be of one continuous piece construction composed of hot rolled steel channel having the minimum dimensions of 5 inches (12.7 cm) depth, .325 inch (.825 cm) web thickness with 1.885 inch (4.789 cm) flange width.			
B. The configuration of the channels shall be cold formed with the flanges on the outside resulting in a one-piece frame member with no cross welding of or on the flanges to avoid any possibility of flange stress cracking.			
C. The tongue shall be equipped with an appropriate pintle hitch, the center of which shall be a minimum of 25 inches (63.5 cm) from the nearest obstruction on the tongue. It shall be adjustable in height above ground level from a minimum of 14 inches (35.6 cm), to a maximum of 32 inches (81.3 cm), permitting practically level towing with a wide range of towing vehicles. The towing hitch shall be bolted to the hitch plate for easy height adjustment and/or conversion to other type hitches.			
D. A screw-post tongue jack shall be furnished. It shall be a heavy-duty type with a load capacity of 7,000 pounds (3,175 kg) and it shall be side mounted and swing away for positive road clearance while under tow.			
TRAILER TIRES, WHEELS, SUSPENSION			
A. The unit shall be equipped with a dual independent rubber torsional suspension each having a safe load capacity of 12,000 pounds (2,721 kg), electric brakes, Hub odometer, drop center disc wheels and ST235/85R16 tubeless tires (Load Range E). Five (5) of each tire manufacturer date to within one (1) year of units delivery. Trailers with springs and shackles are unacceptable as they require more maintenance and reduce ground clearance.			
B. The trailer GVWR shall be less than 10,000. Loaded unit shall not exceed max GVWR.			

SPECIFICATIONS - 400 GALLON CRACK FILL TRAILER	YES	NO	COMMENTS
C. The melter shall have dual LED taillights, stoplights and turn signals. The lighting shall be ICC approved. A license plate holder shall be attached to the driver's side taillight.			
D. All melter fluid tanks shall be positioned no lower than the deck level and be mounted on the top channel frame members to assure proper ground clearance. Units that have components that extend below the trailer frame are unacceptable			
E. The unit shall also be equipped with two safety chains (system 7 grade) not less than 48 inches (121.9 cm) of .38 inch (.97 cm) coil proof chain, attached to the tongue with a drilled type clevis pin on the end attached to the frame and screw type clevis pin on the opposite end.			
F. Shall have all required safety decals, two (2) conspicuity stripes on all sides and back.			
HEATING TANK			
A. The material heating tank shall be cylindrical with a minimum of 64.25 inches (163.19 cm) in diameter by 28.75 inches (73.03 cm) deep having a capacity of 396 gallons (1500 l) at ambient temperature. Oval or square sided tanks are unacceptable as they allow for uneven agitation resulting in a non-homogenous sealant and uneven heating of sealant.			
B. The tank will have a rear discharge to the pump and rear outlet. A double boiler type jacket with internal oil column shall create a square sided tanks are unacceptable as they allow for uneven agitation resulting in a non-homogenous sealant and uneven heating of sealant.			
C. The tank will have a rear discharge to the pump and rear outlet. A double boiler type jacket with internal oil column shall create a reservoir that shall hold a minimum of 43 gallons (162.72 l) of heat transfer oil at 70° F (21° C). (Note: at 500° F (260° C) the heating oil will expand approximately 18%).			
D. The jacket shall wrap around 100% of the outside area of the circular material tank and bottom and allow for complete circulation of the heated transfer oil.			
E. The heat transfer oil tank design shall provide a center tower of a minimum 18 inches (7.08 cm) in height to provide efficient melting and uniform product heating. At no point in the tank shall there be a distance of greater than 27.8 inches (70.6 cm) from a heat surface.			
F. The tank and jacket shall be made of not less than 3/16 inch (.94 cm) rolled sheet steel.			
G. There shall be a plug to allow the entire heat transfer oil system to be drained.			
H. The heat transfer oil shall be of ISO grade 68.			
I. The heat transfer efficiency rating shall be a minimum of 95% as determined by the ratio of the material tank surface area to the HTO tank surface area. Units with an efficiency ratio of less than 95% are unacceptable.			
HEAT TRANSFER OIL EXPANSION TANK			
A. A sealed expansion tank for heat transfer oil shall be provided to minimize oil oxidation and prevent moisture condensation into the heat transfer oil. The tank shall have a filtered breather to allow pressure to vent to the atmosphere. Overflow down tubes are unacceptable.			
HYDRAULIC SYSTEM			
A. The hydraulic system shall incorporate a single hydraulic pump to power the agitation.			
B. All valves shall be solenoid operated by toggle switch and /or wand handle switch.			
C. The controls will allow for bi-directional operation of both the sealant pump and agitator.			
D. A flow control valve will be mounted on the rear of the unit to allow the operator to adjust the pump operational speed.			
E. All controls shall be mounted at the curb side rear on the trailer for easy access by the operator. Hydraulic controls located at the side or forward portion of the trailer are unacceptable.			

SPECIFICATIONS - 400 GALLON CRACK FILL TRAILER	YES	NO	COMMENTS
F. The minimum 24-gallon (90.8 l) hydraulic tank will be equipped with an internal 10-micron full flow filter. The filter shall be equipped with a restriction indicator to indicate the need for service. A sight gauge level indicator equipped with a thermometer to measure oil temperature will be mounted on the tank and located where it is easily viewed.			
TANK INSULATION			
A. The heating tank shall be insulated with a minimum of 1 ½ inch (3.81 cm) thick high temperature ceramic insulation and covered by a 22 gauge steel outer wrapper. Fiberglass and rock wool insulation are unacceptable due to their moisture retention properties resulting in a significant loss in insulating value over an eighteen month period.			
LOADING HATCHES			
A. Two low profile angled lid openings for loading shall be required at the top of the material tank. The loading height shall not be more than 56 inches for operator safety.			
B. One loading door will allow the operation of the equipment, including sealant loading, from curbside even when equipped with a conveyor loading system. Loading systems that require the operator to step onto the melter are unacceptable.			
C. The passenger side opening shall have a minimum area of 384 square inches (2,477.4 square cm) approximately 16 inches (40.6 cm) by 24 inches (60.9 cm). The driver's side opening shall have a minimum area of 252 square inches (1,625.8 square cm) approximately 14 inches (35.5 cm) by 18 inches (45.7 cm) and both shall be hinged to allow placement of a block of sealant onto it to simply close the lid for easy anti-splash loading.			
D. Each loading door will have an insulated handle for opening and closing while the unit is hot and accident spill protection as per vehicle code.			
E. The driver side loading hatch shall be easily adaptable for the addition of retrofit powered loading conveyor with anti splash tower.			
HEATING SYSTEM			
A. The heat transfer oil is heated by one 420,000 BTU high efficiency forced air diesel fired burner rated at above 95% efficiency.			
B. The burner shall fire into an easy access removable burner combustion box. The box will be insulated by a high temperature flexible insulation that is resistant to damage from vibration and over road travel. Ridge insulation is considered non-compliant.			
C. The total area of the heat transfer oil tank exposed to the burner shall be a minimum of 9,921 square inches (64,000 square cm). The material tank shall have a minimum of 9,448 square inches (60,954 square cm) of contact with the heat transfer oil. This provides for a melt rate of 2,500 pounds (1,134 kg) per hour.			
D. The burner shall be lit by a constant duty high voltage transformer powering an electric spark igniter. This igniter shall work in conjunction with a sensor that detects a lack of burn or ignition and shuts down the fuel supply.			
E. The burner shall be controlled by a thermostat control located on the rear curbside of the machine and shall have a toggle switch shut off for operator safety.			
OPERATIONS CONTROLS			
A. The melter applicator shall have a thermostatic control device that will automatically regulate each the hot oil, material, and hose temperature.			
B. The control shall have digital readouts for temperatures of hot oil, material, and hose.			
C. The thermostat shall control burner ignition for a temperature range from a low of 200° F (93.3° C) up to a high of 425°F (218.3°C) for a wide variety of sealants.			
D. The control system shall automatically turn on each function; agitation, heated hose and sealant pump, at the proper temperature without any action by the operator.			

SPECIFICATIONS - 400 GALLON CRACK FILL TRAILER	YES	NO	COMMENTS
E. The control will have an interlock for the agitation system, which will not allow agitator to be activated by the operator until the material temperature reaches 275°. Units without a positive agitation control lockouts based on appropriate temperature are unacceptable.			
F. It will also have an interlock for the pumping system, which will not allow the pump to be activated by the operator until the hose temperature reaches 325°. Units without a positive sealant pump control lockouts based on appropriate temperature are unacceptable.			
AGITATION AND PUMP DRIVE AND DRIVE CONTROLS			
A. The motive force to the agitator and material pump shall be hydraulic motor driven by a single hydraulic pump directly coupled to the engine.			
B. A non adjustable hydraulic valve shall control the rotational speed of the agitator. The agitator speed shall be set at 250 ft/min tip speed per ASTM D5167 specification for sealant melting equipment.			
C. The drive controls governing the speed of the material pump shall be controlled by an adjustable hydraulic valve from the rear passenger side of the machine.			
D. The material pump will have infinite speed control and is electronically actuated by a switch on the hand wand or recirculation port switch.			
E. Material pump can be reversed by a toggle switch on the control panel as required.			
F. Material pump will also be activated when wand is inserted into the shoebox for recirculation of material. This function shall be controlled by a switch that can be turn on or off by the operator as desired from the control box. Recirculation shall not be required to operate the unit.			
AGITATION			
A. A hydraulically driven full sweep vertical agitator with two opposing horizontal paddles with vertical risers attached to the ends shall mix the sealant material at an ASTM specific tip speed of 250 ft/min. Variable speed agitation is unacceptable.			
B. The agitator shall directly couple to the hydraulic motor set to operate at a minimum of 1.5 HP.			
C. The agitator drive shaft shall stand vertically attached to a hydraulic motor on the top surface of the tank.			
D. The surface area of the agitator paddles shall be a minimum of 313 square inches (1,988 square cm). Surface areas of less than 300 inches are unacceptable.			
E. The distance between that tank wall and the edge of agitator paddles shall never exceed three inches. This feature ensures that material remains in complete suspension and that the hot material stays in the lower area of the tank and does not get splashed or thrown to the upper areas of the tank. Units that do not comply are unacceptable.			
F. The agitation system shall be direct driven by a hydraulic motor.			
G. The agitator shall rotate in either direction.			
H. For additional safety the agitator will shut off automatically when either loading hatch is opened.			
BI-DIRECTIONAL VARIABLE SPEED PUMPING UNIT			
A. The material pump shall be a 2 inch (5.1 cm) positive displacement helical gear pump rated at 20 GPM.			
B. Pump and tank valve are heated by an enclosed insulated heating chamber.			
C. Heat flow to this chamber shall be controlled with a slide gate that will separate this chamber from the tank air jacket.			
D. The insulated heating chamber shall have an insulated door hinged and notched for sealant hose access.			
E. The heating chamber shall have an insulated door hinged and notched for sealant hose access.			
F. The heating chamber shall provide storage for a sealant hose.			
G. Pumping of material is controlled by a switch on the hand wand and output is controlled hydraulically.			

SPECIFICATIONS - 400 GALLON CRACK FILL TRAILER	YES	NO	COMMENTS
H. Sealant pump operation shall be on demand. The pump rotation shall stop when sealant application wand trigger is not activated. Units that divert sealant flow without stopping the pump rotation are not ON DEMAND and are unacceptable.			
I. Only one valve shall be required in the pumping system. This valve will be accessible from outside of heat chamber and will separate the material tank from the application system.			
J. No recirculation back into the tank shall be needed to operate the unit. The unit will allow recirculation back to the tank through the applicator wand at the operator's discretion.			
K. No internal or external valves shall be used between the pump and the sealant delivery to the pavement. Units with valves that divert flow to stop sealant from flowing to the application are unacceptable.			
L. The pump shall be capable of delivering sealant at a rate that exceeds the melt rate of the unit.			
SEALANT HOSE AND APPLICATOR WAND			
A. Unit shall be capable of using both heated and non-heated hose and wand applicator. Spare wand and hose.			
B. Both the hose and wand are heated by low voltage electric current and are temperature regulated. Due to weight and safety considerations, an oil jacketed hose is unacceptable.			
C. Both the hose and wand will be serviceable (designed to be factory rebuilt). The manufacture must have an established re-build program to service these components.			
D. The hose shall be specifically manufactured for handling liquid asphalt products up to 400° F (204.4° C) at 350 PSI working pressure.			
E. Hose and wand shall not be less than 19 feet (5.8m) in length. The hose and wand shall have a working radius of 16'6" from the center of the machine.			
F. For maximum operator safety it shall be made of ¾ inch (1.91 cm) inside diameter PTFE Teflon® inner core and reinforced with a stainless steel outer braid. This braid serves a dual purpose; it provides a protective covering for the inner core and allows the hose to carry pressure. It shall also be insulated and have a cover to prevent damage to the hose or allow hot material from leaking out. Further, it shall have an abrasive sleeve to protect the operator from heat.			
G. The total weight of the hose shall not exceed 19 pounds (8.61 kg).			
H. The hose and wand shall be heated with a minimum of three electrical wires with terminal ends. The wires will be capable of heating the hose to 400° F (204° C) in less than 45 minutes and have variable temperature control capability.			
I. The hand wand shall be constructed of steel with sufficient strength to withstand normal day-to-day operation. Material flow is activated by a trigger switch. For greater operator mobility, the connection between the wand and hose shall be through a 360° swivel.			
J. There shall be no obstruction or valves between the material pump and the wand end. The applicator wand shall have a self closing silicone valve at the delivery point of the sealant delivery. This valve will automatically close when sealant application pressure stops and shall not require the operator to manually close any valves.			
K. The hose is supported by a 7ft. 7 in. boom (2.32 m), which swivels side to side on dual pillow block bearings. The hose carriage at the end of the boom shall pivot and have 7 ft. (2.13 m) of horizontal linear movement on roller bearing wheels for further operator comfort.			
L. There shall be a minimum of 6ft. 6in (1.98 m) clearance under boom. Fixed carriage hose booms are unacceptable as they do not allow for easy maneuverability.			
ENGINE – GASOLINE OR DIESEL - SPECIFY			
The unit shall be equipped with a engine complying with the following specifications: 1. Electric start 2. Three cylinder 41.6 HP (31.02 kW) @ 3000 RPM			

SPECIFICATIONS - 400 GALLON CRACK FILL TRAILER	YES	NO	COMMENTS
3. 3.54" (90 mm) stroke 4. Constant speed mechanical governor 5. 91.53 Cu. Inch, (1.51) displacement 6. Full flow oil filter 7. Water cooled 8. Hour meter 9. High water temperature shut down 10. Low oil pressure shut down The engine speed is preset at the factory for optimal alternator output to power the heated wand and hose.			
AIR COMPRESSOR			
A. The unit shall be equipped with a 70 CFM @ 125 PSI rotary vane air compressor.			
B. The compressor shall be driven hydraulically. Belt drive compressors are non-conforming.			
C. Air pressure shall be controlled by a continual intake valve modulation which adjusts the air flow to increase or decrease depending on user demand.			
D. The compressor shall have a toroidal cooler to maintain proper oil temperature.			
E. There shall be a high temperature automatic shut down.			
F. The unit shall have a self contained air to oil hydraulic cooler with an electric fan.			
G. 50 foot of ½" air hose with Chicago Quick Couplers on each end and storage rack shall be supplied. Retractable air hose reel.			
H. An air gun with auto shut off valve and insulated handles shall be supplied.			
FUEL CAPACITY			
A. The melter shall have a 30 gallon (113.56 l) fuel tank for operation of the entire unit.			
B. The unit will be capable of operating for a minimum of 12 hours on one tank of fuel.			
C. The tank shall be equipped with a full length sight gauge for fuel level indication protected in a steel cover lockable fill lid.			
PAINT			
All painted surfaces shall be coated with DuPont two –part epoxy paint applied by DuPont certified painters.			
OPTIONS REQUIRED			
MISCELLANEOUS			
1. Lockable battery cover 2. Lockable Engine cover 3. Fire Extinguisher mounted on the trailer frame 4. Steel Tool Box 5. Mast Mounted strobe light (Whelen PT#2022HP Amber 22 watt, 12-24 vdc) 6. 18 Ft. Electrical hose option 7. Auto Loader – Bid Separately 8. Overnight heater 9. Two (2) copies of each <ul style="list-style-type: none"> • Engine Parts manual • Engine shop manual • Chassis and drive train parts manual • Chassis and drive train shop manual 10. Two (2) copies of operator's manual and maintenance guides. 11. Two (2) copies of operator's manual and maintenance guides. 12. Three (3) set of keys 13. Certified "Weight Master" weight certificate. To be delivered with vehicle. 14. Last three pages of this specification to be completed and returned when the vehicle is delivered. Failure to do so will result in penalty.			

PROPOSAL SHEET

DELIVERY _____ DAYS. EACH @ \$ _____

WARRANTY

MAKE

MODEL

OPTIONS:

- | | |
|-----------------------------------|----------|
| 1. Auto Loader | \$ _____ |
| 2. Pre inspection travel expenses | \$ _____ |

San Bernardino County
Department Of Public Works
Vehicle Master File

VEHICLE FILE MAINTENANCE

1. Unit Number	:	_____	Dept. #	_____	21. Tire Ply, etc.	:	_____	Psi:	_____
2. Veh. Year - Make	:	_____ - _____			22. Lugs	:	_____		
3. Vehicle Model	:	_____	Sz:	_____	23. State Inspect.	:	_____		
4. License Plate	:	_____	Class:	_____	24. Unit GVW	:	_____		
5. Serial Number	:	_____			25. Wheel Base	:	_____		
6. Location	:	_____			26. Alternator Mk.	:	_____	Amps	_____
7. Operator	:	_____			27. Brakes	:	_____		
8. Registration #	:	_____			28. Steering	:	_____		
9. Odometer Units	:	_____	Fuel:	_____	29. Spec. Body Mk.	:	_____		
10. Date Purchased	:	_____	Insrvc:	_____	30. Spec. Body Md.	:	_____		
11. Engine Make	:	_____			31. Spec. Equipmt.	:	_____		
12. Engine Model	:	_____			32. *Purchase Price	:	_____		
13. Transmis. Make	:	_____			Current Value	:	_____		
14. Transmis. Model	:	_____			33. Trade in Value	:	_____		
15. Rear End Make	:	_____			34. Deprec./Perd.	:	_____	/pd for	_____ pd
16. Rear End Cap	:	_____	Tons.	_____	35. License/Year	:	_____	/yr or	_____ /pd
17. Front Axle	:	_____			36. Insranc/Year	:	_____	/yr or	_____ /pd
18. Wheel Size	:	_____			37. License Expir.	:	Pd: _____	every	_____ pds
19. Tire Size	:	_____			38. Fuel X-Ref. #	:	_____		
20. Eng. Horsepwr	:	_____			39. Bucket Cu. Yd.	:	_____		

*Total Number of Periods to Depreciate: _____

SAN BERNARDINO COUNTY
Department of Public Works
Transportation/Flood Control
Vehicle Maintenance Master File

COMPONENT	RECOMMENDED SERVICE INTERVALS	OIL VISCOCITY/TYPE	REFILL CAPACITIES	FILTER/PART NUMBERS
ENGINE				
TRANSMISSION				
TRANSFER CASE				
PTO GEAR BOX				
AUX. GEAR BOX				
DIFFERENTIALS				
FINAL DRIVES				
HYDRAULIC SYSTEM				
CIRCLE DRIVE GEAR BOX				
INTAKE SYSTEM				
COOLING SYSTEM				

TIRE SPECIFICATIONS

TIRE POSITION	TIRE SIZE	TREAD DEPTH (NEW)	TIRE INFLATION (PSI)	WHEEL NUT TORQUE